

WE CLAIM

1. A source selection system for a communication switch for selecting a primary datasource from a plurality of datasources, said system comprising:

a validation module associated with said plurality of datasources adapted to monitor each datasource of said plurality of datasources for transmission errors in output originating from said each datasource and adapted to provide information relating to said transmission errors;

a source selector associated with said validation module and said plurality of datasources, said source selector adapted to select an output datasource from said plurality of datasources; and

an assessment module associated with said validation module adapted to identify said primary datasource from said plurality of datasources utilizing said information provided by said validation module and adapted to cause said source selector to select said output datasource associated with said primary datasource.

15 2. A source selection system as claimed in claim 1, wherein said validation module comprises a plurality of validation sub-modules, each one of said plurality of validation sub-modules associated with one of said plurality of datasources.

3. A source selection system as claimed in claim 2, wherein said validation module performs an integrity check on data transmitted by said each datasource to provide information relating to transmission errors for said each datasource.

20 4. A source selection system as claimed in claim 3, wherein said assessment module evaluates severity of said transmission errors provided in said information and causes said source selector to select said output datasource associated with said primary datasource based on said severity of said transmission errors for said each of said plurality of datasources.

25 5. A source selection system as claimed in claim 4, wherein said integrity check on said data comprises a parity check and a cyclic redundancy check.

6. A source selection system as claimed in claim 5, wherein said integrity check is performed on a payload portion of said data.
7. A source selection system as claimed in claim 6, wherein said integrity check is performed on a header portion of said data.
- 5 8. A source selection system as claimed in claim 7, wherein said communication switch comprises a plurality of output cards and an input card, said each one of said plurality of datasources originating from one of said plurality of output cards and said source selector operating at input to said input card.
9. A source selection system as claimed in claim 8, wherein at least one of said output cards 10 comprises a component and said integrity check is performed upon said data being received by said component in said at least one of said output cards of said communication switch.
10. A source selection system as claimed in claim 9, wherein said source selector is a multiplexer.
11. A method of selecting a primary datasource from a plurality of datasources in a 15 communication switch comprising the steps of:
receiving data from each datasource of said plurality of datasources;
monitoring said each datasource for transmission errors originating in output from said each datasource; and
identifying said primary datasource from said plurality of datasources utilizing 20 information relating said transmission errors for said each datasource.
12. A method of selecting a primary datasource as claimed in claim 11, further comprising the step of outputting data from said primary datasource identified.
13. A method of selecting a primary datasource as claimed in claim 12, further comprising the step of gathering information relating to health of said each datasource.

14. A method of selecting a primary datasource as claimed in claim 13, wherein said monitoring said each datasource for transmission errors is executed by performing an integrity check on data originating from said each datasource.
15. A method of selecting a primary datasource as claimed in claim 14, wherein said gathering information relating to said health of said each datasource records severity of said transmission errors monitored and said primary datasource is identified based on said severity of said errors for said each datasource.
16. A method of selecting a primary datasource as claimed in claim 15, wherein said integrity check on said data comprise parity checks and cyclic redundancy checks.
- 10 17. A method of selecting a primary datasource as claimed in claim 16, wherein said integrity check is performed on a payload portion of said data.
18. A method of selecting a primary datasource as claimed in claim 17, wherein said integrity check is performed on a header portion of said data.

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